Sexually Transmitted Infections

Editorials

HIV prevention and homosexual men: should we be optimistic about the new millennium?

In the United Kingdom, HIV prevention among homosexual men is recognised as a long term and evolving challenge.[1] For more than a decade, sustained and innovative prevention efforts have formed part of the statutory and community response to the national AIDS epidemic. The adoption of safer sex and health protective behaviours (for example, completed hepatitis B vaccination, routine STI screening including HIV tests) are testimony to their relative success.[2 3] More recently, however, the availability of effective antiretroviral therapies, dramatic reductions in reported AIDS cases and deaths, and the apparent stabilisation of the HIV epidemic have resulted in a gradual relaxation of the crisis response to AIDS. This relaxation is also apparent within some affected communities[4] and among the people working with them,[5] while the exclusion of HIV/AIDS from the government's white paper for England, *Saving Lives: Our Healthier Nation*, also reflects changing national priorities.[6] In many circles, a new optimism prevails—the worst seems to be over.

However, this optimism may be unfounded if it is based solely on removal of the threat of death, rather than a demonstrated reduction in HIV incidence and sustained behavioural change. Each year about 1500 homosexual men are newly diagnosed as HIV positive, a figure that has remained relatively unchanged for a decade.[7] Behavioural surveillance of homosexual men in London shows gradual and significant increases in the proportion of men reporting unprotected anal intercourse (UAI) with a partner of unknown or discordant HIV status.[2] Other national studies show a stabilisation of UAI rates across the country,[8] and rates of gonorrhoea among homosexual men, particularly those aged 35 and over, appear to be increasing.[9] So, has HIV prevention among homosexual men reached an impasse? Where should HIV prevention be heading in the future?

HIV prevention—how far have we come?

HIV prevention among homosexual men has progressed through several stages, reflecting developments in our understanding of the natural history of infection, disease epidemiology, diagnostic and therapeutic advances. Early prevention messages reflected our limited knowledge of disease transmission. Increased understanding of the protective role of condoms led to their promotion for all acts of anal intercourse (100% condom use), a strategy that failed to fully incorporate evidence on their efficacy or homosexual men's concerns about their acceptability and appropriateness.[10] The widespread availability of HIV testing enabled its incorporation into primary prevention strategies and the promotion of risk reduction strategies such as "negotiated safety."[11] Today, the range of HIV prevention interventions utilised with homosexual men is varied, and includes conventional health education, outreach, one to one counselling, group work, peer led education, and community development. Theoretically derived behavioural interventions, targeting individuals perceived to be at increased risk (for example, men with acute STDs or reporting UAI) are increasingly delivered in a wide range of settings, including those where risky behaviours are likely to occur.[12]

However, at the end of the 1990s, HIV prevention in homosexual men is being forced to confront new realities. Changes in disease epidemiology, public and sexual health priorities,[6] "prevention fatigue," and increased budgetary pressures make general approaches to HIV prevention less tenable, and force us to reconsider whether targeting those who are unlikely to be at "increased risk" is appropriate and cost effective. We believe what is required is a refocusing of our efforts, and that four key areas offer new opportunities for intervention, and potentially important prevention dividends.

Younger homosexual men—a different generation with different need

It would be incorrect to believe that safer sex strategies are passed from one generation of homosexual men to the next, or that young homosexual men whose sexual careers began after the emergence of the epidemic have had the same experience of AIDS as older homosexual men.[4 13 14] Men under 30 years constitute almost one third of newly diagnosed HIV infections in homosexual men each year.[7] Gonorrhoea diagnoses increased by 17% in homosexual men aged 16–19 years between 1995 and 1998.[15] Behavioural surveys show that young homosexual men are more likely to report UAI than older men, particularly so with unknown or serodiscordant partners.[2 16] With high levels of knowledge and familiarity with safer sex,[8 16] many do not see HIV as a concern for themselves, but one for older homosexual men.[14] This generational effect may worsen as the crisis response to AIDS diminishes and changes in men's understanding of their "gay identity" threaten the cohesiveness of the gay community.[10]

The challenges for HIV prevention among young homosexual men are many. As with all groups of homosexual men, but particularly younger men, efforts to control STDs (which facilitate the transmission and acquisition of HIV) must be prioritised. Messages that focus on single behaviours (for example, condom use) for a single objective (preventing HIV infection) are no longer appropriate. Messages need to be flexible, engage young men in a

variety of ways, and adapt to changing attitudes and behaviours.[14 17] We must also recognise that legal obstacles (for example, the age of consent and Section 28)* prevent a frank discussion of sexual diversity at an early age and create environments where discrimination, homophobia, and poor self esteem are allowed to flourish. Interventions specifically tailored to young homosexual men's perceived needs, and appropriate strategies (for example, peer education and community based development projects) have been successful in reducing UAI rates over time.[17] The long term dividends of successful HIV prevention with this group are worth the additional efforts required and fit neatly with the government's objective of "increasing the length of people's lives and the number of years people spend free from illness."[6]

Working with HIV positive homosexual men

Targeting prevention interventions at HIV positive individuals is difficult and it is no surprise that they have been, and remain, relatively unengaged in prevention planning. Affected communities are understandably concerned about stigmatisation and discrimination; prevention workers feel ill equipped to tackle pertinent issues; and clinicians often fail or are reluctant to incorporate prevention discussions into the clinical context—a missed opportunity. However, as the stigma and exceptionalism associated with HIV diminishes, an opportunity exists to re-evaluate individual and collective responsibilities for preventing onward transmission. People living with HIV have indicated that issues directly related to primary prevention—partner notification, disclosure of HIV serostatus, managing relationships—are part of living with the disease.[18] Clinicians are increasingly aware that widespread antiretroviral prescribing carries a responsibility for ensuring that the risk of transmission of resistant or virulent strains is minimised. Targeting primary prevention interventions within routine HIV clinical care may allow for more tailored and cost effective approaches that are better suited to individual requirements. However, this will require that consideration is given to the skills mix and the resources needed to support such programmes. More generally, those committed to delivering accessible and appropriate prevention interventions for people living with HIV must also be committed to establishing genuinely productive partnerships.

Understanding and managing risk

Recent prevention work has attempted to support strategies for reducing the risk of sexual transmission of HIV based on knowledge of HIV status, partner seroconcordancy, and the ability to negotiate contexts where UAI may occur (for example, negotiated safety).[11 19] However, communicating issues around risk and risk management can be difficult, and promoting risk reduction strategies may conflict with other prevention messages that focus on increasing condom use.[14] Additionally, as risk reduction activities involve undertaking multiple and often complex tasks, men employing them may do so less than perfectly.[20 21] But this does not mean that we should abandon risk reduction. On the contrary, since we know UAI is occurring, the challenge is finding ways to support homosexual men in understanding and minimising their risks as much as possible. Not all UAI is "high risk." In many instances, UAI may be relatively low risk depending on the partner, context, and local epidemiology. Prevention messages that promote risk reduction should aim to provide the right information so that when UAI does happen, it is more likely to happen in contexts that are "lower risk," rather than only in very restricted setting(s) where there is virtually no risk. This may provide a more pragmatic approach to dealing with the realities of safer sex "fatigue" and "lapses" in safer sex behaviours currently being observed.[2] However, we must also be mindful that little is actually known about the effectiveness of risk reduction strategies at the population level, or how they compare with other prevention strategies.[20 21] In addition to developing and delivering these interventions, concomitant evaluation will be required.

Improving evaluation of interventions

Despite advances in our understanding of behavioural theory and prevention models, the success of many interventions continues to be measured in numbers of condoms distributed, self reported behaviour change, and rates of UAI. More sophisticated tools to measure the effectiveness of innovative, theory based interventions—use of biological markers (HIV seroconversion rates or STD acquisition) and wider sexual health outcomes (for example, psychosocial wellbeing)—have received only limited consideration. There are only a few examples of evaluations in the United Kingdom in which disease outcomes or experimental methodologies have been employed to measure the effectiveness of prevention interventions.[22–24] Even carefully designed behavioural interventions should not be assumed to bring benefit; they need to be evaluated to prove their effectiveness.

Good evaluations do not need to be expensive or labour intensive if they are included at the intervention's design stage. But outcome measures (biological or behavioural) must be appropriate. If an intervention is designed to reduce disease incidence by reducing risky behaviours, then an objective measure of disease incidence must be considered as the most powerful indicator of its effectiveness.[25] Well conducted, rigorous evaluations are the only way to demonstrate efficient use of increasingly limited resources. Although prevention workers may not feel they have the skills or resources to undertake them routinely, much can be gained by creating alliances between academic units and service providers,[26] utilising and disseminating models of good practice.

Conclusions

The dramatic prevention achievements of the 1980s, largely attributable to the response of a galvanised gay community, are clearly a thing of the past. In sexual health, a growing political and specialty interest in other areas (for example, chlamydia and teenage pregnancy) suggests that HIV prevention could soon be relegated to the back seat. It could easily be argued that HIV prevention in homosexual men has reached the stage where ever increasing resources and skills are required to achieve ever smaller dividends. Nevertheless, dividends are still there, and in the case of young homosexual men, they may be among our most important prevention achievements. We believe that by focusing our energies in the areas discussed we can maximise the remaining potential benefits of HIV prevention in homosexual men. Our success will depend to some extent on the presence and strength of supportive infrastructures among those involved in HIV prevention, treatment, and care. These include establishing creative and enduring partnerships between sexual health providers, community based organisations, and academic institutions; critically reappraising the HIV clinician's role in facilitating primary prevention; ensuring that prevention workers keep abreast of, adapt, and incorporate evidence based prevention strategies into planning; and finally, adopting a more holistic approach to sexual health in which the wider determinants of sexual health are tackled.[4]

We have been warned already about becoming complacent with respect to HIV prevention and homosexual

men.[13] If there is reason to be optimistic, it is because the immediate and long term challenges of HIV prevention in homosexual men are better understood, as are some of the tools with which to tackle them.

* Different ages of consent apply for heterosexual sex (16 years) and homosexual sex involving two males (18 years). Lesbian sex is not explicitly mentioned in the law; however, a female under 16 is deemed not capable of consenting to any sexual act. Section 28 of the 1988 Local Government Act states: 2A (1) A local authority shall not (a) intentionally promote homosexuality or publish material with the intention of promoting homosexuality; (b) promote the teaching in any maintained school of the acceptability of homosexuality as a pretend family relationship.

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Are STIs underreported in rural Australia?

Bowden *et al* (p 431) using specimens collected by tampon and polymerase chain reaction (PCR) technology from indigenous women in the Northern Territory of Australia, have shown that the prevalence of *Trichomonas vaginalis*, *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, and human papillomavirus infection are very high in this group of women, and that the prevalence of *N gonorrhoeae* and *C trachomatis* was more than four times the official notification rate from the Northern Territory Health Service.

The interpretation of these data is complicated by several factors. Firstly, the authors provide limited information on the attendees and how many accepted or declined the screening. The second issue relates to the fact that, of women with symptoms, the proportion of these who presented with symptoms, or whose symptoms were elicited on direct questioning, is unclear. However, it would still appear that less than 10% of patients presented with symptoms and that the majority of patients notified to the Northern Territory Health Service would only have been tested as a consequence of genital symptoms. Thirdly, as mentioned by the authors, the PCR methodology is more sensitive than existing techniques of culture and microscopy, and consequently will detect more patients. Finally, community based prevalence studies will always detect more patients that those notified through routine reporting systems.

Despite these reservations, the disparity between the proportion of patients detected in this study and those found through routine surveillance systems is enormous and is a great cause of public health concern. This potential for underreporting STIs which are endemic in this part of Australia has serious repercussions for service funding provision. This in turn will affect morbidity and mortality as it will lead to an underestimation of the population infected and at risk.

Currently, each of the states and territories in Australia is responsible for surveillance. This usually occurs through a process of individual case notification by clinicians and/or laboratories. All states and territories notify cases of syphilis and gonorrhoea, and chlamydia has recently been added to the list. Genital herpes, human papillomavirus infection, and trichomoniasis are not notified. Consequently it is difficult to determine the true incidence and prevalence of STIs in Australia.

There are several possible strategies for improving the situation. This first is to consider abandoning the current state based surveillance system and, instead, instituting a